

CLAIMS

1. A display apparatus that is used as a display component of an electronic device capable of switching between a normal power consumption state and a low power consumption state and that comprises a panel in which a display area and a peripheral circuit section for driving the display area are integrally formed on an insulating substrate, wherein

said circuit section can switch between an operation mode and a waiting mode in response to the switching between the normal power consumption state and the low power consumption state of a main body of the electronic device,

said circuit section comprises standby control means that operates by receiving power supply voltage from the main body of the electronic device and drives the display area to show a desired image in the operation mode, and

while receiving the power supply voltage from the main body of the electronic device, stops driving the display area and inactivates the circuit section to suppress power consumption of the panel in the waiting mode, and

said standby control means executes a control

sequence to shut off direct current components flowing through resistive elements at least included in the circuit section during the inactivation.

2. The display apparatus according to claim 1,
wherein

said display area comprises pixel electrodes arranged as a matrix, common electrodes opposing to the pixel electrodes, and an electrooptic material held between the pixel and common electrodes,

said circuit section comprises drivers for writing signal voltage to the pixel electrodes, a common driver for applying a common voltage to the common electrodes, and an offset circuit for adjusting a level of the common voltage relative to the signal voltage, and

said standby control means executes a control sequence to shut off direct current components flowing through resistive elements included in the offset circuit during the inactivation.

3. The display apparatus according to claim 2,
wherein

said circuit section comprises a start circuit for charging the offset circuit so as to apply the common voltage quickly upon activation of the panel in addition to the common driver for applying the common voltage to

the common electrodes and the offset circuit for adjusting the level of the common voltage, and

 said standby control means executes a control sequence to shut off direct current components flowing through resistive elements included in the start circuit during the inactivation.

4. The display apparatus according to claim 1, wherein

 said display area comprises pixels arranged as a matrix,

 said circuit section comprises drivers for writing analog voltages having gradations in accordance with image information sent from the main body of the electronic device to the pixels, and an analog voltage generator for supplying at a plurality of levels of the analog voltages already corresponding to the gradations to the driver, and

 said standby control means executes a control sequence to shut off direct current components flowing through series resistive elements for voltage splitting included in the analog voltage generator during the inactivation.

5. The display apparatus according to claim 1, wherein said standby control means executes a control

sequence to block clocks supplied to at least the circuit section to suppress charge and discharge occurring in the circuit section during the inactivation.

6. The display apparatus according to claim 5,
wherein

said circuit section comprises a DC/DC converter for converting a primary power supply voltage supplied from the main body of the electronic device to a secondary power supply voltage in accordance with specifications of the panel, and

said standby control means executes a control sequence to block clocks supplied to the DC/DC converter to suppress charge and discharge occurring in the DC/DC converter during the inactivation.

7. The display apparatus according to claim 1,
wherein said panel comprises thin-film transistors that form the display area and the peripheral circuit section for driving the display area on the common insulating substrate in an identical process.